RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/666,122A_
Source: _1Fw16_
Date Processed by STIC: _1/24/07_

ENTERED

IFW16

RAW SEQUENCE LISTING   DATE: 01/24/2007
PATENT APPLICATION: **US/10/666,122A**   TIME: 11:12:19

Input Set : **A:\11311.1002U.txt**
Output Set: **N:\CRF4\01242007\J666122A.raw**

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 1 <110> APPLICANT: Laus, Reiner
 2          Gold, Mitchell H.
 3          Madhusudan, Peshwa
 4          Pickering, Grant
 5          Kylstra, Jelle
 7 <120> TITLE OF INVENTION: Immunotherapeutic Compositions and Methods for the
 8          Treatment of Moderately to Well-differentiated Cancers
10 <130> FILE REFERENCE: 20642/1203635-US2
12 <140> CURRENT APPLICATION NUMBER: US 10/666,122A
13 <141> CURRENT FILING DATE: 2003-09-19
15 <150> PRIOR APPLICATION NUMBER: US 60/412,271
16 <151> PRIOR FILING DATE: 2002-09-20
18 <150> PRIOR APPLICATION NUMBER: US 60/475,335
19 <151> PRIOR FILING DATE: 2003-06-02
21 <160> NUMBER OF SEQ ID NOS: 6
23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 386
27 <212> TYPE: PRT
28 <213> ORGANISM: Homo sapiens
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33 Gly Phe Leu Phe Leu Leu Phe Phe Trp Leu Asp Arg Ser Val Leu Ala
34              20                  25                  30
35 Lys Glu Leu Lys Phe Val Thr Leu Val Phe Arg His Gly Asp Arg Ser
36          35                  40                  45
37 Pro Ile Asp Thr Phe Pro Thr Asp Pro Ile Lys Glu Ser Ser Trp Pro
38      50                  55                  60
39 Gln Gly Phe Gly Gln Leu Thr Gln Leu Gly Met Glu Gln His Tyr Glu
40 65                  70                  75                  80
41 Leu Gly Glu Tyr Ile Arg Lys Arg Tyr Arg Lys Phe Leu Asn Glu Ser
42              85                  90                  95
43 Tyr Lys His Glu Gln Val Tyr Ile Arg Ser Thr Asp Val Asp Arg Thr
44          100                 105                 110
45 Leu Met Ser Ala Met Thr Asn Leu Ala Ala Leu Phe Pro Pro Glu Gly
46          115                 120                 125
47 Val Ser Ile Trp Asn Pro Ile Leu Leu Trp Gln Pro Ile Pro Val His
48      130                 135                 140
49 Thr Val Pro Leu Ser Glu Asp Gln Leu Leu Tyr Leu Pro Phe Arg Asn
50 145                 150                 155                 160
51 Cys Pro Arg Phe Gln Glu Leu Glu Ser Glu Thr Leu Lys Ser Glu Glu
52              165                 170                 175
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53 Phe Gln Lys Arg Leu His Pro Tyr Lys Asp Phe Ile Ala Thr Leu Gly
54         180                 185                 190
55 Lys Leu Ser Gly Leu His Gly Gln Asp Leu Phe Gly Ile Trp Ser Lys
56         195                 200                 205
57 Val Tyr Asp Pro Leu Tyr Cys Glu Ser Val His Asn Phe Thr Leu Pro
58     210                 215                 220
59 Ser Trp Ala Thr Glu Asp Thr Met Thr Lys Leu Arg Glu Leu Ser Glu
60 225                 230                 235                 240
61 Leu Ser Leu Leu Ser Leu Tyr Gly Ile His Lys Gln Lys Glu Lys Ser
62             245                 250                 255
63 Arg Leu Gln Gly Gly Val Leu Val Asn Glu Ile Leu Asn His Met Lys
64         260                 265                 270
65 Arg Ala Thr Gln Ile Pro Ser Tyr Lys Lys Leu Ile Met Tyr Ser Ala
66         275                 280                 285
67 His Asp Thr Thr Val Ser Gly Leu Gln Met Ala Leu Asp Val Tyr Asn
68     290                 295                 300
69 Gly Leu Leu Pro Pro Tyr Ala Ser Cys His Leu Thr Glu Leu Tyr Phe
70 305                 310                 315                 320
71 Glu Lys Gly Glu Tyr Phe Val Glu Met Tyr Tyr Arg Asn Glu Thr Gln
72             325                 330                 335
73 His Glu Pro Tyr Pro Leu Met Leu Pro Gly Cys Ser Pro Ser Cys Pro
74         340                 345                 350
75 Leu Glu Arg Phe Ala Glu Leu Val Gly Pro Val Ile Pro Gln Asp Trp
76         355                 360                 365
77 Ser Thr Glu Cys Met Thr Thr Asn Ser His Gln Gly Thr Glu Asp Ser
78     370                 375                 380
79 Thr Asp
80 385
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83 <211> LENGTH: 3089
84 <212> TYPE: DNA
85 <213> ORGANISM: Homo sapiens
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89 ctcctggcca gggcagcaag ccttagcctt ggcttcttgt ttctgctttt tttctggcta     120
90 gaccgaagtg tactagccaa ggagttgaag tttgtgactt tggtgtttcg gcatggagac     180
91 cgaagtccca ttgacacctt tcccactgac cccataaagg aatcctcatg gccacaagga     240
92 tttggccaac tcacccagct gggcatggag cagcattatg aacttggaga gtatataaga     300
93 aagagatata gaaaattctt gaatgagtcc tataaacatg aacaggttta tattcgaagc     360
94 acagacgttg accggacttt gatgagtgct atgacaaacc tggcagccct gtttccccca     420
95 gaaggtgtca gcatctggaa tcctatccta ctctggcagc ccatcccggt cacacagtt      480
96 cctctttctg aagatcagtt gctatacctg cctttcagga actgccctcg tttttcaagaa    540
97 cttgagagtg agactttgaa atcagaggaa ttccagaaga ggctgcaccc ttataaggat     600
98 tttatagcta ccttgggaaa actttcagga ttacatggcc aggacctttt tggaatttgg     660
99 agtaaagtct acgacccttt atattgtgag agtgttcaca atttcacttt accctcctgg     720
100 gccactgagg acaccatgac taagttgaga gaattgtcag aattgtccct cctgtccctc    780
101 tatggaattc acaagcagaa agagaaatct aggctccaag ggggtgtcct ggtcaatgaa    840
102 atcctcaatc acatgaagag agcaactcag ataccaagct acaaaaaact tatcatgtat    900
103 tctgcgcatg acactactgt gagtggccta cagatggcgc tagatgttta caacggactc    960
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105 gtggagatgt actaccggaa tgagacgcag cacgagccgt atccccctcat gctacctggc  1080
106 tgcagcccca gctgtcctct ggagaggttt gctgagctgg ttggccctgt gatccctcaa   1140
107 gactggtcca cggagtgtat gaccacaaac agccatcaag gtactgagga cagtacagat   1200
108 tagtgtgcac agagatctct gtagaaagag tagctgccct ttctcagggc agatgatgct   1260
109 ttgagaacat actttggcca ttaccccca  gctttgagga aaatgggctt tggatgatta    1320
110 ttttatgttt tagggacccc caacctcagg caattcctac ctcttcacct gaccctgccc   1380
111 ccacttgcca taaaacttag ctaagttttg ttttgttttt cagcgttaat gtaaaggggc   1440
112 agcagtgcca aaatataatc agagataaag cttaggtcaa agttcataga gttcccatga   1500
113 actatatgac tggccacaca ggatcttttg tatttaagga ttctgagatt ttgcttgagc   1560
114 aggattagat aagtctgttc tttaaatttc tgaaatggaa cagatttcaa aaaaaattcc   1620
115 cacaatctag ggtgggaaca aggaaggaaa gatgtgaata ggctgatggg gaaaaaacca   1680
116 atttacccat cagttccagc cttctctcaa ggagaggcaa agaaaggaga tacagtggag   1740
117 acatctggaa agttttctcc actggaaaac tgctactatc tgttttttata tttctgttaa   1800
118 aatatatgag gctacagaac taaaaattaa aacctctttg tgtcccttgg tcctggaaca   1860
119 tttatgttcc ttttaaagaa acaaaaatca aactttacag aaagatttga tgtatgtaat   1920
120 acatatagca gctcttgaag tatatatatc atagcaaata agtcatctga tgagaacaag   1980
121 ctatttgggc acaacacatc aggaaagaga gcaccacgtg atggagtttc tccagaagct   2040
122 gcagtgataa gagatgttga ctctaaagtt gatttaaggc caggcatggt ggtttacgcc   2100
123 tataatccca gcattttggg actccgaggt gggcagatca cttgagctca ggagctcaag   2160
124 atcagcctgg gcaacatggt gaaaccttgt ctctacataa aatacaaaaa cttagatggg   2220
125 catggtgctg tgtgcctata gtccactact tgtggggcta aggcaggagg atcacttgag   2280
126 ccccggaggt cgaggctaca gtgacccaag agtgcactac tgtactccag ccagggcaag   2340
127 agagcgagac cctgtctcaa taaataaata aataaataaa taaataaata aataaaaaca   2400
128 aagttgatta agaaaggaag tataggccag gcacagtggc tcacacctgt aatccttgca   2460
129 ttttggaagg ctgaggcagg aggatcactt taggcctggt gtgttcaaga ccagcctggt   2520
130 caacatagtg agacactgtc tctaccaaaa aaaggaagga agggacacat atcaaactga   2580
131 aacaaaatta gaaatgtaat tatgttatgt tctaagtgcc tccaagttca aaacttattg   2640
132 gaatgttgag agtgtggtta cgaaatacgt taggaggaca aaaggaatgt gtaagtcttt   2700
133 aatgccgata tcttcagaaa acctaagcaa acttacaggt cctgctgaaa ctgcccactc   2760
134 tgcaagaaga aatcatgata tagctttcca tgtggcagat ctacatgtct agagaacact   2820
135 gtgctctatt accattatgg ataaagatga gatggtttct agagatggtt tctactggct   2880
136 gccagaatct agagcaaagc catccccct  cctggttggt cacagaatga ctgacaaaga    2940
137 catcgattga tatgcttctt tgtgttattt ccctcccaag taaatgtttg tccttgggtc   3000
138 cattttctat gcttgtaact gtcttctagc agtgagccaa atgtaaaata gtgaataaag   3060
139 tcattattag gaagttcaaa aaaaaaaaa                                       3089
141 <210> SEQ ID NO: 3
142 <211> LENGTH: 144
143 <212> TYPE: PRT
144 <213> ORGANISM: Homo sapiens
146 <400> SEQUENCE: 3
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148 1               5                   10                  15
149 Ser Ala Pro Ala Arg Ser Pro Ser Pro Ser Thr Gln Pro Trp Glu His
150             20                  25                  30
151 Val Asn Ala Ile Gln Glu Ala Arg Arg Leu Leu Asn Leu Ser Arg Asp
152         35                  40                  45
153 Thr Ala Ala Glu Met Asn Glu Thr Val Glu Val Ile Ser Glu Met Phe
154     50                  55                  60
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155 Asp Leu Gln Glu Pro Thr Cys Leu Gln Thr Arg Leu Glu Leu Tyr Lys
156 65                  70                  75                  80
157 Gln Gly Leu Arg Gly Ser Leu Thr Lys Leu Lys Gly Pro Leu Thr Met
158              85                  90                  95
159 Met Ala Ser His Tyr Lys Gln His Cys Pro Pro Thr Pro Glu Thr Ser
160              100                 105                 110
161 Cys Ala Thr Gln Ile Ile Thr Phe Glu Ser Phe Lys Glu Asn Leu Lys
162          115                 120                 125
163 Asp Phe Leu Leu Val Ile Pro Phe Asp Cys Trp Glu Pro Val Gln Glu
164     130                 135                 140
166 <210> SEQ ID NO: 4
167 <211> LENGTH: 767
168 <212> TYPE: DNA
169 <213> ORGANISM: Homo sapiens
171 <400> SEQUENCE: 4
172 cggaggatgt ggctgcagag cctgctgctc ttgggcactg tggcctgcag catctctgca        60
173 cccgcccgct cgcccagccc cagcacgcag ccctgggagc atgtgaatgc catccaggag       120
174 gcccggcgtc tcctgaacct gagtagagac actgctgctg agatgaatga acagtagaa        180
175 gtcatctcag aaatgtttga cctccaggag ccgacctgcc tacagacccg cctggagctg       240
176 tacaagcagg gcctgcgggg cagcctcacc aagctcaagg gcccccttgac catgatagcc      300
177 agccactaca gcagcactg ccctccaacc ccggaaactt cctgtgcaac ccagattatc        360
178 acctttgaaa gtttcaaaga gaacctgaag gactttctgc ttgtcatccc ctttgactgc       420
179 tgggagccag tccaggagtg agaccggcca gatgaggctg gccaagccgg ggagctgctc       480
180 tctcatgaaa caagagctag aaactcagga tggtcatctt ggagggacca aggggtgggc       540
181 cacagccatg gtgggagtgg cctggacctg ccctgggcca cactgaccct gatacaggca       600
182 tggcagaaga atgggaatat tttatactga cagaaatcag taatatttat atatttatat       660
183 ttttaaaata tttatttatt tatttattta agttcatatt ccatatttat tcaagatgtt       720
184 ttaccgtaat aattattatt aaaaatatgc ttctaaaaaa aaaaaaa                      767
186 <210> SEQ ID NO: 5
187 <211> LENGTH: 144
188 <212> TYPE: PRT
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: Made in a lab from human amino acids
194 <400> SEQUENCE: 5
195 Met Trp Leu Gln Ser Leu Leu Leu Leu Gly Thr Val Ala Cys Ser Ile
196 1               5                   10                  15
197 Ser Ala Pro Ala Arg Ser Pro Ser Pro Ser Thr Gln Pro Trp Glu His
198              20                  25                  30
199 Val Asn Ala Ile Gln Glu Ala Arg Arg Leu Leu Asn Leu Ser Arg Asp
200          35                  40                  45
201 Thr Ala Ala Glu Met Asn Glu Thr Val Glu Val Ile Ser Glu Met Phe
202     50                  55                  60
203 Asp Leu Gln Glu Pro Thr Cys Leu Gln Thr Arg Leu Glu Leu Tyr Lys
204 65                  70                  75                  80
205 Gln Gly Leu Arg Gly Ser Leu Thr Lys Leu Lys Gly Pro Leu Thr Met
206              85                  90                  95
207 Met Ala Ser His Tyr Lys Gln His Cys Pro Pro Thr Pro Glu Thr Ser
208              100                 105                 110
```

```
209 Cys Ala Thr Gln Ile Ile Thr Phe Glu Ser Phe Lys Glu Asn Leu Lys
210           115                 120                 125
211 Asp Phe Leu Leu Val Ile Pro Phe Asp Cys Trp Glu Pro Val Gln Glu
212     130                 135                 140
214 <210> SEQ ID NO: 6
215 <211> LENGTH: 767
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: Made in a lab from human nucleic acids
222 <400> SEQUENCE: 6
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224 cccgcccgct cgcccagccc cagcacgcag ccctgggagc atgtgaatgc catccaggag         120
225 gcccggcgtc tcctgaacct gagtagagac actgctgctg agatgaatga aacagtagaa         180
226 gtcatctcag aaatgtttga cctccaggag ccgacctgcc tacagacccg cctggagctg         240
227 tacaagcagg gcctgcgggg cagcctcacc aagctcaagg gccccttgac catgatagcc         300
228 agccactaca agcagcactg ccctccaacc ccggaaactt cctgtgcaac ccagattatc         360
229 acctttgaaa gtttcaaaga gaacctgaag gactttctgc ttgtcatccc ctttgactgc         420
230 tgggagccag tccaggagtg agacnggcca gatgaggctg gccaagcagg ggagctgctc         480
231 tctcatgaaa caagagctag aaactcagga tggtcatctt ggagggacca aggggtgggc         540
232 cacagccatg gtgggagtgg cctggacctg ccctgggcca cactgacct gatacaggca         600
233 tggcagaaga atgggaatat tttatactga cagaaatcag taatatttat atatttatat         660
234 ttttaaaata tttatttatt tatttatttα agttcatatt ccatatttat tcaagatgtt         720
235 ttaccgtaat aattattatt aaaaatatgc ttctaaaaaa aaaaaaa                        767
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VERIFICATION SUMMARY   DATE: 01/24/2007
PATENT APPLICATION: **US/10/666,122A**   TIME: 11:12:21

Input Set : **A:\11311.1002U.txt**
Output Set: **N:\CRF4\01242007\J666122A.raw**